



Ultra-Wide Band Compact Size Discone Antenna

CWD-20-6000

20-6000 MHz

2 dBi Gain

High-Performance Wideband RF Coverage & Design: The CWD-20-6000 is an ultra-wideband, omni-directional discone scanner antenna engineered for high-efficiency **spectrum monitoring**, **signal intelligence**, and broadband base station applications. Operating across an expansive **20–6000 MHz** frequency range with a 2 dBi gain, this **100% passive** discone antenna utilizes advanced low-frequency passive loading techniques to significantly **reduce its physical footprint** while maintaining an exceptional radiation efficiency exceeding 95% across the band. With a low VSWR across the entire spectrum, it functions seamlessly as a highly sensitive monitoring and scanning antenna from 20 MHz up, and as a rugged transmitting antenna from 66–6000 MHz. Its **exceptionally wide vertical beamwidth** ensures reliable, uninterrupted omni-directional communication links for critical ground-to-ground, maritime, and ground-to-air (aerospace) applications with compact size physical footprint.

Ruggedized Aerospace-Grade Construction & Fast Deployment:

Built for survivability in extreme environments, the **CWD-20-6000** discone antenna features a rugged, all-weather construction fabricated from **6063-T6 corrosion-resistant architectural aluminum** alloy. To ensure long-term structural integrity against UV radiation, acid rain, salt spray, and desert sandstorms, the entire metal surface is treated with an industrial-grade protective **powder coating**, paired with **high-grade stainless steel** hardware and fasteners. For maximum weatherproofing, the RF termination and coaxial feed cable are entirely enclosed within the heavy-duty mounting pipe. This compact, field-proven design **requires zero tuning** or calibration, and it features detachable cone and disc elements for optimized shipping logistics, enabling rapid deployment and effortless installation in high-density tactical or commercial wireless networks.



Electrical Specifications:

Frequency Range	20 - 6000 MHz.
Gain - Typical	2 dBi. (66-6000MHz)
Bandwidth	Entire Band
Polarization	Vertical
Input Impedance	50 Ohms
Radiation Pattern	Omni-Directional
Vertical Beam-width –Half Power Points.	78 Degrees
VSWR – Better Than	3:1 over 95% band
RF Power Handling Capacity	20-66MHz: Rx Only 80-6000MHz: Rx & Tx Both
Input Termination	N-Female

Mechanical Specifications:

Materials	6063T6 Aluminum Alloy
Mounting Hardware -Materials	High Grade Stainless Steel
Weight Approx	7 Kgs.
Wind Rating	200 Km/Hr.
Overall Length	1.25 Meter
Shipping Length	1.65 Meters
No. of Disk & Cone Elements	12 & 9 Nos.
Max. Mount Pipe Diameter	52mm (2 Inches)
Corrosion Protection	Epoxy-Based Powder Coating

Environmental Specifications:

Operating Temperature	(-)30 to +70 Degrees Celsius
Storage Temperature	(-)40 to +80 Degrees Celsius
Humidity	0 to 95% RH

Please contact us for further information like Azimuth & Elevation radiation patterns, Image and frequency Vs VSWR graph.